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**Patent Abstract**

GER 2002-01-10 10032022 **PROCEDURES AND REGULATION OF THE ANSTEUERSpannung FOR AN EINSPRITZENTIL WITH A PIEZOELEKTRISCHEN AKTOR**

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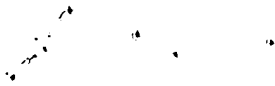
Erfindungsgemoao" is proposed a procedure about the regulation of the Anstauerspannung for a piezoelektrischen Aktor of an Einspritzventils, with him/it before the next Einspritzvorgang at first indirectly the pressure on a hydraulic Koppler (4) is measured. The pressure is measured in that the piezoelektrische Aktor (2) is connected mechanically with the hydraulic Koppler (4) so that the

pressure induces a corresponding Piezo-Spannung in the Aktor (2). This induced tension is used for the Aktor (2) for the correction of the Ansteuerspannung u. a. before the next Einspritzvorgang. One to low induced tension been assessed as mistakes for the recognition of an Einspritzaussetzers. \$A the Einspritzventil (1) is used to the fuel injection for a gas or diesel engine (figure 1) for a Common-Rail-System preferably.

**EXEMPLARY CLAIMS-** 1. Procedure for the determination of the heading for tension fr a piezoelectric actuator (2) of a einspritzventils (1), with which a Flüssigkeitsmenge is injected under high pressure into a cavity, whereby the actuator (2) is connected in a drilling of the einspritzventils (1) more ber a placing piston (3) with an adjacent hydraulic coupler (4), as hydraulic bersetzung works and a high pressure on a piston (5) with a Verschlieglied the 12 ausbt and at it the Verschlieglied (12) into positions between a first seat (6) and moves a second seat (7), and whereby after einspritzvorgang the hydraulic coupler (4) ber an appropriate Channel wiederbefllt is marked, by the fact that after einspritzvorgang is measured the pressure (P1) in the hydraulic coupler (4) appropriate parameter, and that with the parameter by means of a given algorithm a value is determined fr the heading for tension (Ua) of the piezoelectric actuator (2). 2. Procedure according to requirement 1, by the fact characterized that on the clamps of the actuator as parameter a tension (Ui) is based, which is induced due to the pressure (P1) in the coupler (4) in the actuator (2). 3. Procedure according to requirement 2, by the fact characterized that the tension between two injections is measured. 4. Procedure after one the Ansprche 1 to 3, by the fact characterized that the heading for tension (Ua) is angepat to up-to-date the pressure (P1), dominant in the coupler (4). 5. Procedure after one the preceding Ansprche, thereby characterized that the algorithm exhibits a table, in the allocation values between the pressure (P1), which induced tension (Ui) and/or the heading for tension (Ua) is stored. 6. Procedure after one the preceding Ansprche, by the fact characterized that when falling below a given threshold value fr the induced tension (Ui) and/or the computed coupler pressure (Pk) an error message is spent. 7. Procedure according to requirement 6, by the fact characterized that the error message

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